Navy Expeditionary Combat Command

Expeditionary Navy Legacy Equipment IUID Marking

8 April 2010

Navy Expeditionary Combat Command

Providing rapidly deployable and agile expeditionary forces, made up of active duty and reserve mission specialists, to warfare commanders in support of maritime security operations around the globe.

Riverine

Naval Construction (Seabees)

Explosive Ordnance Disposal

Maritime Expeditionary Security

Expeditionary Intelligence

Combat Camera
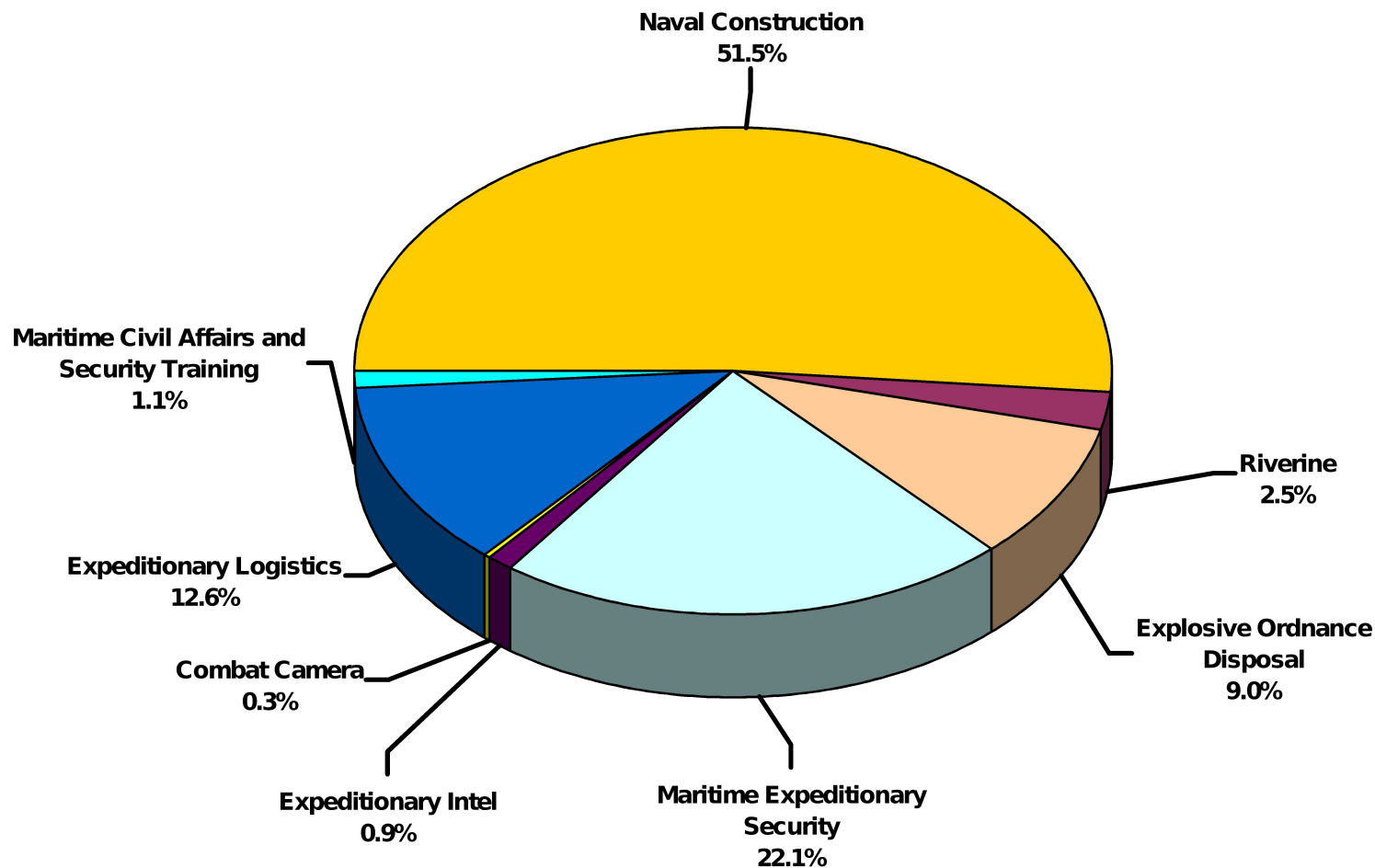
Expeditionary Logistics

Guard Battalion

Maritime Civil Affairs & Security Training

Expeditionary Combat Readiness

NECC At A Glance

Naval Construction
51.5%

Maritime Civil Affairs and
Security Training
1.1%

Expeditionary Logistics
12.6%

Combat Camera
0.3%

Expeditionary Intel
0.9%

Maritime Expeditionary
Security
22.1%

Explosive Ordnance
Disposal
9.0%

Riverine
2.5%

53 percent of NECC Forces are Reserve Compon

Agenda

- **Leveraging**

- **Riverine Group ONE IUID Marking Objective**

- **Marking Assets**

- **Lessons Learned**

- **End User Benefits**

- **Future Outlook**

Adaptive, Responsive, Expeditionary

Leveraging

- MFOM implementation the catalyst for IUID installation (maintenance assets only)
  - Implementation of IUID in conjunction with planned conversion to MFOM
  - Piggybacking off USFFC MFOM / IUID resources, processes, and efforts
    - Contract personnel to implement IUID on expeditionary equipment
    - Database and model builds

- USMC efforts
  - Navy Equipment being marked at Blount Island Command (BICmd) during Maritime Prepositioning Forces (MPF) maintenance cycles
    - Marks being applied, recorded and reported via Marine Corps effort
  - Not 'Re-creating the Wheel'
    - NECC and Marine Corps manage like equipment
    - Marking is uniform
      - Bottom, Top, Left, Right (B, T, L, R) of USN or Manufacture name plate
      - No impact to form, fit or function

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- **Conduct IUID Equipment Marking effort by leveraging an overall maintenance suite provided by the Maintenance Figure of Merit (MFOM)**

- **Apply Unique Item Identification (UII) marks** to **legacy Principal End Items (PEI) and various PEI sub-components**
  - **CESE and CEEI**

- **Provide training**
  - **UII marking guidance**
  - **PEI UII application instructions**
  - **M**aintainer training on software and hardware**

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- **Leverage USMC marking guidance**
  - B,T,L,R of USN/MFR name plate, no impact to Form, Fit, or Function
- **Seek and Apply Method**
  - RIVGRU staging yards (2) on JEB Little Creek
  - Marking PEI and select sub-components
  - Assist units maintainers with initial marking (8-10 March 2010)
- **Training (on site), OJT for units and NECC IUID team (crawl/walk)**
  - Tag application
    - Equipment validation and apply UII tags
  - Handheld
    - Functionality and link to Automated Work Notification (AWN) → MFOM
  - Computer applications
    - AWN/MFOM

- **UII Tags**
  - **Human/2D Scanner readable, Constru**
  - **Paper label**
  - **IUID Plate Encapsulators**
    - **Base material: Lexan polycarbonate film**
    - **Self laminating cover: . matte clear Tedlar polyvinyl fluoride film**

Size: (4' by .75')

TRAILER CHASSIS BOAT, 97-46562
LDN0006000000000000000000000000015441854

- **Handheld Scanner**
  - **Intermec Model CN3G, CN3BSH80000Z4G1, NSN 7025-01-5 8082**

- **Printer, Automatic DYMO (Direct Thermal printer)**

(Note: APL for handheld barcode Scanner and Label Printer used for inventory assets – 2-320026001)

- **Automated Information System (AIS)**
  - **eSOM**
    - **Utilized to validate equipment in config model and to develop the UII tags**

- CESE/CEEI (PEI) and selected Sub-components and Boats
  - CESE
    - Environmental Control Unit w/Trailer
    - Water Bulls
    - Light Plants
    - SIXCONs
      - Tank and Pumps
    - MTVR
      - MTVR Differential
    - HMMWV
    - Fork Truck
    - Welding Units (Trailer)
  - CEEI
    - TRICON
    - ISU 90s
  - Boats
    - Boat
    - Boat Engines
    - Boat Trailer

MTVR

MTVR (Cab)

MTVR Differentia

Marking Assets Highlights

RIVGRU Marks applied:

Requirement: 1159 separate and distinct marks identified

Marks applied: **384**
  Consisting of
    Boats: 26
    CESE (PEI) Marked: 138
    Engine: 24
    Trailer: 20
    Differential: 74
    TRICON: 59
    ISU 90: 28
    Welders: 2

Percent Marked: 33%

Note: Equip not in CDMD-OA data: 61

Blount Island Command

Marks applied on NMCB equipment: 222 UIIs

Individual Equipment Codes (EC) or PEIs: 78

NOMENCLATURE: TRUCK, CARGO, XLWB, W/O WINCH
USMC VEHICLE REGISTRATION NUMBER: 595364
NSN: 2320014652180
DESIGN ACTIVITY: 45152
SERIAL NUMBER: 10TDMWE303S078038
GOVERNMENT OWNERSHIP DESIGNATION: US PROPERTY
CONTRACT NUMBER: DAAE-07-99-C-M007
HUMAN READABLE UII: LDM67854MTVR-2XLWBMK27595564

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- **Leveraging existing efforts**

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Lessons Learned

- **Seek and Apply**
  - Operational units equipment are dynamic targets
- **Software**
  - eSOM was not developed for Seek and Apply application
  - A true Seek and Apply application would greatly simplify process and streamline data collaboration with MFOM system
- **Hardware**
  - Handheld - Connectivity to the AWN server with the handheld was not realized until the third day...Conduct soft run prior to implementing efforts

- **Equipment/Configuration Validation**
  - Equipment identification via name plates during 'Seek' phase sometimes difficult
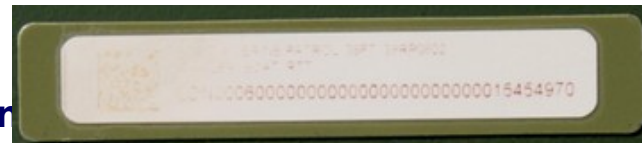   - Missing MFR or USN plates
    - No USN numbers assigned

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Lessons Learned (cont)

- **Labels Material Shortfalls**
  - **Fading printed UII marks on labels**
    - **Cause: UII's printed with Direct Thermal fade in direct sunlight**
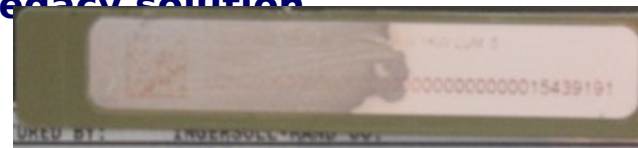   - **Solution: Change to Thermal Transfer printer**
      - **Evaluating DYMO Label Writer 4XL - label printer - 1923600 approx**

  - **Water Intrusion**
    - **Cause: Limited clearance for cover flap to adhere, high risk for operator error during application and Wet paper labels**
    - **Solution: Large tags will be tested (4.25" x 1" and 4.25" x 1.25" vice 4" x .75"), evaluating Mylar labels (waterproof) to replace paper labels**

Anticipate limited cost increase, keeping with a low cost legacy solution

- **Tag Shortfalls**
  - **Rough surface adherence**
    - **Cause: Flat tags will not adhere to irreglar surfaces (Differentials)**
    - **Solution: Evaluated foam adhesives to conquer irregular surfaces. (.45 Mil)**
      - **Result: up grade to 13% greater 3M adhesive**

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End User Benefits

- **Automatic Data Capture (with Scanner capability)**

- **Improved accuracy for Total Asset Visibility**
  - Accurate sources for equipment validation and accountability
  - Better asset management as equipment is moved between units

- **Better documentation of material deficiency**

- **Reduction in time/effort of recording Maintenance deficiencies**

- **Improved configuration data accuracy**

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- **Develop Table of Allowance (TOA) marking solution (Non-maintenance material effort)**

- **Utilize the marks**
  - Establish processes to measure the effective utilization of the UII (maintenance/TAV/TOA management)

- **Develop further marking guidance for NECE**
  - leverage USFF, NAVSEA, NAVFAC, SPAWAR, NAVSUP, NAVAIR, USMC guidance and implementation efforts

- **Incorporate UII mark validations into the TYCOM assessment/inspection doctrine**
  - 3-M, SMA, etc.

Questions?